

Technical References for Tehachapi-Cummings County Water District LGA Grant Application

Existing Studies

BSK, Engineers, Geologists, Environmental Scientists, (2000). *Report of Groundwater Modeling Study Regarding Nitrate Migration*. Golden Hills Community Services District, Western Tehachapi Valley, Kern County, California.

BSK, Engineers, Geologists, Environmental Scientists, (2006). *Update to the May 31, 2000 Groundwater Model and Study Regarding Nitrate Migration* (BSK E05.142.01F). Golden Hills Community Services District, Western Tehachapi Valley, Kern County, California.

Fugro West Inc., ETIC Engineering, (2004). *Cummings Groundwater Basin Study, Final Report*. Tehachapi-Cummings County Water District.

Fugro West Inc., (2009). *Tehachapi Groundwater Basin Study, Final Report*. Tehachapi-Cummings County Water District.

Fugro West Inc., (2009). *Calculation of Recharge Losses, Cummings Groundwater Basin*. Tehachapi-Cummings County Water District.

Groundwater Well Monitoring Background Information to be Used for the Project

Lapham, W.W., Wilde, F.D., Koterba, M.T. (1997). *Guidelines and Standard Procedures for Studies of Ground-water Quality: Selection, and Installation of Wells, and Supporting Documentation, U.S. Geological Survey Water-Resources Investigations Report 96-4233*. Reston, Virginia.

ASTM (2010). *D6089-97 (2010) – Standard Guide for Documenting a Groundwater Sampling Event*. American Society for Testing and Materials. Philadelphia, PA.

Nitrate Background Information to be Used for the Project

Bouwer, H., Bowman, R.S., and Rice, R.C. (1983). Effect of irrigated agriculture on underlying groundwater, in *Relation of Groundwater Quantity and Quality (Proceedings of the Hamburg Symposium, August 1983)*. IAHS Publ. no. 146.

Canter, L. and Knox, R. (1985). *Septic Tank System Effects on Ground Water Quality*. Lewis Publishers, Inc. ASTM.

Drake, V.M., and Bauder, J.W. (2005). Ground Water Nitrate-Nitrogen Trends in Relation to Urban Development, Helena, Montana, 1971-2003. *Groundwater Monitoring & Remediation*. 25, no. 2: 118-130.

Dzurella, K.N., Medellin-Azuara, J., Jensen, V.B., King, A.M., De La Mora, N., Fryjoff-Hung, A., Rosenstock, T.S., Harter, T., Howitt, R., Hollander, A.D., Darby, J., Jessoe, K., Lund, J.R. & Pettygrove, G.S. (2012). Nitrogen Source Reduction to Protect Groundwater

- Quality. Technical Report 3 in: *Addressing Nitrate in California's Drinking Water with a Focus on Tulare Lake Basin and Salinas Valley Groundwater*. Report for the State Water Resources Control Board Report to the Legislature. Center for Watershed Sciences, University of California, Davis.
- Harter, T., Onsoy, Y.S., Heeren, K., Denton, M., Weissmann, G., Hopmans, J.W., and Horwath, W.R. (2005). "Deep vadose zone hydrology demonstrates fate of nitrate in eastern San Joaquin Valley", *California Agriculture*: Vol. 59: No. 2, Page 124.
- Rosen, M.R., Kropf, C., and Thomas, K.A. (2006). *Quantification of the Contribution of Nitrogen from Septic Tanks to Ground Water in Spanish Springs Valley, Nevada*, Scientific Investigations Report 2006-5206.
- Stonestrome, D.A., Prudic, D.E., Lacznia, R.J., Akstin, K.C., Boyd, R.A., and Henkelman, K.K. (2003). *Estimates of Deep Percolation Beneath Native Vegetation, Irrigated Fields, and the Amargosa-River Channel, Amargosa Desert, Nye County, Nevada*, USGS Open-File Report 03-104.
- Viers, J.H., Liptzin, D., Rosenstock, T.S., Jensen, V.B., Hollander, A.D., McNally, A., King, A.M., Kourakos, G., Lopez, E.M., De La Mora, N., Fryjoff-Hung, A., Dzarella, K.N., Canada, H.E., Laybourne, S., McKenney, C., Darby, J., Quinn, J.F. & Harter, T. (2012). Nitrogen Sources and Loading to Groundwater. Technical Report 2 in: *Addressing Nitrate in California's Drinking Water with a Focus on Tulare Lake Basin and Salinas Valley Groundwater*. Report for the State Water Resources Control Board Report to the Legislature. Center for Watershed Sciences, University of California, Davis.
- Xu, Y., Baker, L.A., and Johnson, P.C. (2007). Trends in Ground Water Nitrate Contamination in the Phoenix, Arizona Region, *Groundwater Monitoring & Remediation*. 27, no. 2: 49-56.

Groundwater Modeling Background Information and Standards to be Used for the Project

- ASTM (1994). D 5611-94: *Standard Guide for Conducting a Sensitivity Analysis for a Ground-Water Flow Model Application*. American Society for Testing and Materials. Philadelphia, PA.
- ASTM (1996). D 5981-96: *Standard Guide for Calibrating a Ground-Water Flow Model Application*. American Society for Testing and Materials. Philadelphia, PA.
- ASTM (1995). D 5718-95. *Standard Guide for Documenting a Ground-Water Flow Model Application*. American Society for Testing and Materials. Philadelphia, PA.
- Harbaugh, A.W. (2005). *MODFLOW-2005, – the U.S. Geological Survey modular ground-water model -- the Ground-Water Flow Process: U.S. Geological Survey Techniques and Methods 6-A16, variously p.* Reston, Virginia.